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Powell, R., J. Torres, and N. Navarro Pacheco. 2017. *Anolis ruibali*.

Anolis ruibali Navarro Pacheco and Garrido
Cabo Cruz Pallid Anole

Anolis ruibali Navarro Pacheco and Garrido 2004:86. Type locality, "Alegría de Pío, Niquero, provincia de Granma [Cuba]." Holotype, Museo de Historia Natural Carlos de la Torre y Huerta, Holguín (MNHN) 14:250, an adult male, collected by N. Navarro, C. Peña, and E. Palacio on 25 June 1996 (examined by NNP).

CONTENT. No subspecies are recognized.

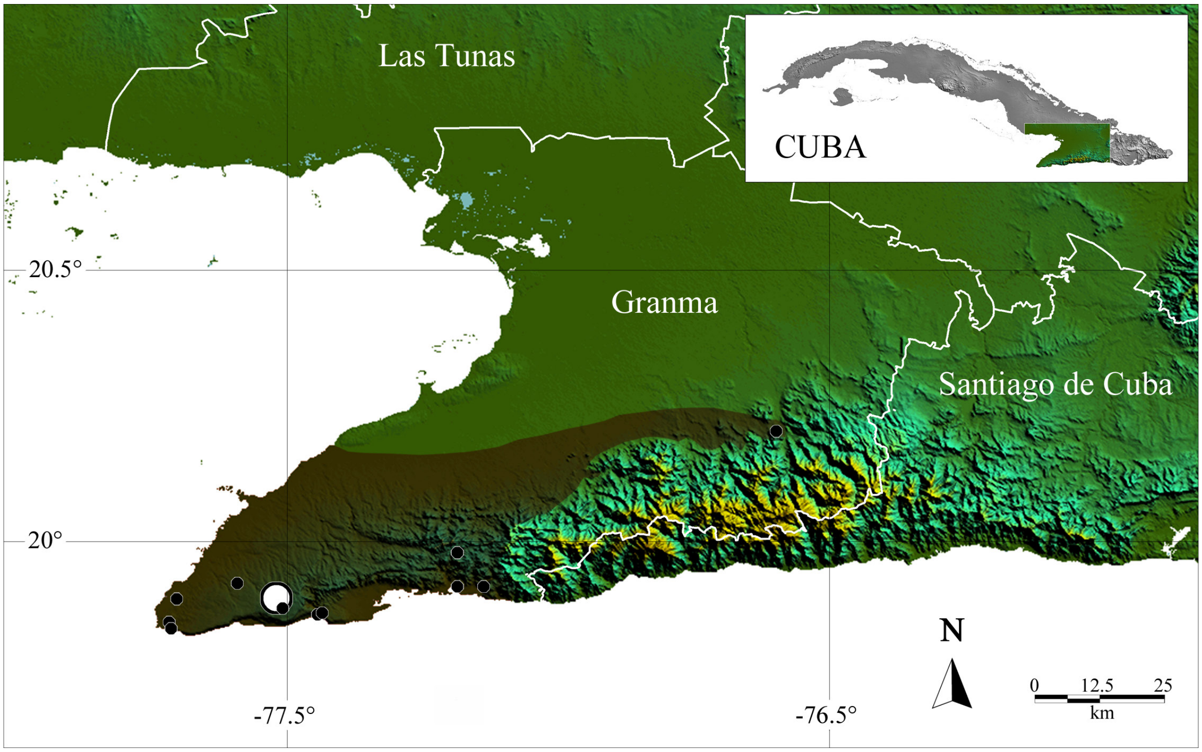
DESCRIPTION. *Anolis ruibali* is a small anole (36.5 mm maximum snout-vent length [SVL]) with a less robust habitus and a relatively longer rostrum and narrower head than in other species of the *Anolis argillaceus* complex (Navarro Pacheco and Garrido 2004). Females are smaller than males and have a small dewlap. Dorsal scales on head and body are smooth, but those on the tail are slightly keeled beginning with the first caudal verticil. Dorsal scales (30 in a distance equal to that between the tip of the snout and the anterior point of the orbit) are small and granular, ventrals (15 in the same distance as dorsal scales) are larger than dorsals and aligned in diagonal series. Scales on the dewlap are small and elongated. Head scales of the holotype are 6/5 supralabials, 3 scales between canthals, 12 loreals, 0 scales between the interparietal and supraorbital semicircles, 15 scales surrounding the interparietal, and one scale between parietals. Small folds of skin extend above the ears.

The dorsal ground color is ashy-white, with a few lighter longitudinal stripes in some color phases. The head is yellowish, with a more distinct pattern and brown scales in lighter areas. A dark brown interorbital bar is evident, and black lines radiate from the orbit onto the supralabials. Rounded suprascapular dark spots have diffuse edges. Depending on metachrosis, the small dewlap has either light or dark scales on a pinkish or reddish ground color.



Figure 1. Adult male (top) and adult female *Anolis ruibali* from Cabo Cruz, Granma. Notice the larval mites (presumably *Eutrombicula* sp.) on the upper eyelid of the male and in the axilla of the female. Photographs by Nils Navarro Pacheco.

DIAGNOSIS. *Anolis ruibali* is likely to be confused only with *Anolis centralis* and *Anolis litoralis* (which was considered a subspecies of *Anolis centralis* when *Anolis ruibali* was described). *Anolis ruibali* is smaller (mean SVL 35.3 mm vs. 38.4 mm for *Anolis centralis* and 45.5 mm for *Anolis litoralis*; Garrido 1975), has a rosy or reddish dewlap with small scales (versus intense crimson, sometimes with an orangish cast, and large scales in *Anolis centralis* and a pale yellow or yellow-orange dewlap with large scales in *Anolis litoralis* (Garrido 1975; Navarro et al. 2001), and larger postcloacal scales in males (mean = 2.06 ± 0.26 mm in *Anolis ruibali* vs. mean = 1.73 ± 0.23 mm in *Anolis centralis*). *Anolis ruibali* is similar to *Anolis pumilus* in size, but



Map. The distribution (in brown) of *Anolis ruibali*; the circle marks the type locality, dots mark other known localities (modified from Rodríguez Schettino et al. 2013).



Figure 2. Natural habitat of *Anolis ruibali* in Cabo Cruz, Granma. Photograph by Nils Navarro Pacheco.

Anolis pumilus lacks the skin folds above the ears, is stockier, has a shorter rostrum, and the dewlap is yellow-orange. The elongated head of *Anolis ruibali* distinguishes it from other species in the *Anolis argillaceus* group, although juveniles often are difficult to differentiate.

PHYLOGENETIC RELATIONSHIPS. *Anolis ruibali* has been placed within the *Anolis argillaceus* complex (Navarro Pacheco and Garrido 2004), the *Anolis angusticeps* series/clade (Losos 2009), and the *Anolis loysianus* species group (Nicholson et al. 2012). Subsequently, *Anolis ruibali* was recovered as the sister to *Anolis litoralis* in a terminal branch within a clade containing all the species of the *Anolis argillaceus* complex (Poe et al. 2017).

PUBLISHED DESCRIPTIONS. A detailed description was provided by Navarro Pacheco and Garrido (2004).

ILLUSTRATIONS. Color photographs of an adult and of habitat were published by Navarro Pacheco (2012), and color photographs of an adult male and the dewlap were provided by Hedges (2017). A **black-and-white photograph** of an adult male was provided by Navarro Pacheco and Garrido (2004).

DISTRIBUTION. *Anolis ruibali* is known only from the southern coast of Granma Province in southeastern Cuba and one locality on the northern slope of the Sierra Maestra, also in Granma Province (Rodríguez Schettino et al. 2013) at elevations of 0–400 m asl (Rodríguez Schettino et al. 2010). This species is found primarily in xeric coastal scrub, along edges of evergreen forest, semideciduous forest, and secondary vegetation, where lizards commonly perch on *Acacia farnesiana*, *Dichrostachys glomerata*, other thorny plants and shrubs, and fence posts along forest edges and openings at heights below 2 m. The range was illustrated previously by Navarro Pacheco (2012), Rodríguez Schettino et al. (2013), and Hedges (2017).

FOSSIL RECORD. No fossils are known.

PERTINENT LITERATURE. In addition to the original description (Navarro Pacheco and Garrido 2004), *Anolis ruibali* was included (sometimes a mere mention) in checklists, general works, articles focusing on other species, or faunal accounts by Ayala-Varela et al. (2014), Estrada (2012),



Figure 3. Adult male *Anolis ruibali* showing habitus and the dewlap. Photograph by S. Blair Hedges (from Hedges 2017).

Henderson and Powell (2009), Kusumi et al. (2011), Losos (2009), Nicholson et al. (2012), Paemelaere (2010), Rodríguez Schettino et al. (2010, 2013), Uetz et al. (2017), and Wrobel (2004). See **Remarks** for information on the conservation status of the species.

REMARKS. *Anolis ruibali* was included in a resolution by Miyar Barrueco (2011) as a species in need of conservation. This species was listed as "Vulnerable" in the Cuban Red List by Navarro Pacheco (2012); but the status of the species has not been assessed for the IUCN Red List (IUCN 2016).

The ecomorphology of the species is unresolved and has not been tested using morphological criteria (Henderson and Powell 2009).

ETYMOLOGY. The specific epithet *ruibali* is a patronym honoring Rodolfo Ruibal, a renowned Cuban-born herpetologist (Beolens et al. 2011; Navarro Pacheco and Garrido 2004; Uetz et al. 2017).

ADDITIONAL VERNACULAR NAMES. Lagartija (Navarro Pacheco 2012), but note that "Lagartija" is the general name applied to anoles in Cuba (except for those in the *Anolis equestris* species group and the *Chamaeleolis* clade).

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